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Interior Department Announces Actions to Protect Colorado River System, Sets 2023 Operating Conditions for Lake Powell and Lake Mead

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WASHINGTON — As the worsening drought crisis continues to impact communities across the West, the Department of the Interior today announced urgent action to improve and protect the long-term sustainability of the Colorado River System, including commitments for continued engagement with impacted states and Tribes. The Bureau of Reclamation also released the [Colorado River Basin August 2022 24-Month Study](#), which sets the annual operations for Lake Powell and Lake Mead in 2023 in light of critically low reservoir conditions.

Prolonged drought and low runoff conditions accelerated by climate change have led to historically low water levels in Lakes Powell and Mead. Over the last two

decades, Department leaders have engaged with Colorado River Basin partners on various drought response operations. However, given that water levels continue to decline, additional action is needed to protect the System.

In addition to the actions being announced today, the Biden-Harris administration is making unprecedented investments in drought resilience and water management. President Biden's Bipartisan Infrastructure Law makes a historic \$8.3 billion investment to address water and drought challenges and invest in our nation's western water and power infrastructure, while rebuilding our existing projects to withstand a changing hydrology. Additionally, the recently passed Inflation Reduction Act includes \$4 billion in funding specifically for water management and conservation efforts in the Colorado River Basin and other areas experiencing similar levels of drought.

"The worsening drought crisis impacting the Colorado River Basin is driven by the effects of climate change, including extreme heat and low precipitation. In turn, severe drought conditions exacerbate wildfire risk and ecosystems disruption, increasing the stress on communities and our landscapes," said **Deputy Secretary Tommy Beaudreau**. "The Biden-Harris administration is taking an all-of-government approach to mitigating the drought, and the Interior Department is committed to using every resource available to conserve water and ensure that irrigators, Tribes and adjoining communities receive adequate assistance and support to build resilient communities and protect our water supplies."

"Every sector in every state has a responsibility to ensure that water is used with maximum efficiency. In order to avoid a catastrophic collapse of the Colorado River System and a future of uncertainty and conflict, water use in the Basin must be reduced," said **Assistant Secretary for Water and Science Tanya Trujillo**. "The Interior Department is employing prompt and responsive actions and investments to ensure the entire Colorado River Basin can function and support all who rely on it. We are grateful for the hardworking public servants who have dedicated their lives to this work, and who are passionate about the long-term sustainability of Basin states, Tribes, and communities."

"The solution to our challenges relies on the bedrock of a century of collaboration and partnership in the Colorado River Basin. But as water stewards, it is our

responsibility to protect the system and the millions of Americans who depend on it. Today, Reclamation starts the process on actions we can take to deliver on those responsibilities,” said **Bureau of Reclamation Commissioner Camille Calimlim Touton**. “Reclamation remains fully committed to working in a consensus manner across the Upper and Lower Basins, with Tribes, and with the country of Mexico. I am confident that, by working together, we can achieve meaningful change toward a sustainable future for the river that serves as the lifeblood of the American West.”

2023 Operations of Lake Powell and Lake Mead

Given the 23-year ongoing historic drought and low runoff conditions in the Colorado River Basin, downstream releases from Glen Canyon and Hoover Dams – which created Lakes Powell and Mead – will be reduced again in 2023 due to declining reservoir levels. In the Lower Basin, the reductions represent the second year of additional shortage declarations, demonstrating the severity of the drought and critically low reservoir conditions.

The key determinations from the August 2022 24-Month Study include:

- **Lake Powell** will operate in the Lower Elevation Balancing Tier in water year 2023 (Oct. 1, 2022, through Sept. 30, 2023). The 24-Month Study projects Lake Powell’s Jan. 1, 2023, water surface elevation to be 3,521.84 feet – 178 feet below full pool (3,700 feet) and 32 feet above minimum power pool (3,490 feet). The August 24-Month Study projects that Lake Powell will likely release 7 million acre-feet in water year 2023 with the potential for Powell releases to range between 7 to 9.5 maf during water year 2023, depending on hydrologic conditions, as Lake Powell and Lake Mead balance storage contents under the Lower Elevation Balancing Tier.
 - The Department will evaluate hydrologic conditions in April 2023 and will implement the Interim Guidelines Section 7.D by limiting water year 2023 releases (with a minimum of 7.0 maf) to protect Lake Powell from declining below 3,525 feet at the end of December 2023.
- **Lake Mead** will operate in its first-ever Level 2a Shortage Condition in calendar year 2023 (Jan. 1, 2023, through Dec. 31, 2023). The August 24-

Month Study projects Lake Mead's Jan. 1, 2023, operating determination elevation to be 1,047.61 feet, which is calculated by taking Lake Mead's projected end of calendar year 2022 physical elevation (1,040.78 feet) and adding the 480,000 acre-feet of water held back in Lake Powell to Lake Mead's capacity to maintain operational neutrality. The projected elevation of 1,047.61 feet reflects a Level 2a Shortage Condition, within the DCP elevation band of 1,045 and 1,050 feet, with required shortage reductions and water savings contribution for the Lower Basin States and Mexico, pursuant to Minute 323, as follows:

- Arizona: 592,000 acre-feet, which is approximately 21% of the state's annual apportionment
- Nevada: 25,000 acre-feet, which is 8% of the state's annual apportionment
- Mexico: 104,000 acre-feet, which is approximately 7% of the country's annual allotment
- There is no required water savings contribution for California in 2023 under this operating condition.

In May 2022, drought operations to protect Lake Powell were implemented under the Upper Basin Drought Response Operations Agreement, and Glen Canyon Dam releases were reduced under the 2007 Interim Guidelines, which together provided approximately 1 million acre-feet of additional water to help protect water levels at Lake Powell. Building on these important responsive actions, Reclamation will begin efforts to modify low reservoir operations at both Lake Powell and Lake Mead to be prepared to reduce releases from these reservoirs in 2024 to address continued drought and low runoff conditions in the Basin.

Reclamation will continue to implement the applicable provisions of the 2007 Colorado River Interim Guidelines for Lower Basin Shortages and coordinated operations for both reservoirs: Minute 323 to the 1944 U.S. Mexico Water Treaty; and the 2019 Drought Contingency Plans.

Call for Basin-Wide Conservation

In recent months, Reclamation has shared updated information documenting the increasing risks that will continue to impact Lake Powell and Lake Mead.

Reclamation's "[Protection Volume Analysis](#)" details that, depending on future snowpack and runoff, a range of actions will be needed to stabilize elevations at Lake Powell and Lake Mead over the next four years (2023-2026). The analysis shows, depending on Lake Powell's inflow, that the additional water or conservation needed ranges from 600,000 acre-feet to 4.2 maf annually.

In June 2022, Commissioner Touton testified before the [U.S. Senate Committee on Energy and Natural Resources](#) and called on water users across the Basin to take actions to prevent the reservoirs from falling to critically low elevations that would threaten water deliveries and power production. Reclamation is using the best available science and actively collaborating with water users across the Basin to determine the best ways to meet this increased conservation need.

Accordingly, in addition to undertaking preliminary work to develop the post-2026 strategies and operations, as several reservoir and water management decision documents expire at the end of 2026, Reclamation will immediately initiate a number of administrative actions in the Basin.

In the Upper Basin, Reclamation will:

- Take administrative actions needed to authorize a reduction of Glen Canyon Dam releases below 7 million acre-feet per year, if needed, to protect critical infrastructure at Glen Canyon Dam.
- Accelerate ongoing maintenance actions and studies to determine and enhance projected reliability of the use of the river outlet works, commonly referred to as the bypass tubes, at Glen Canyon Dam for extended periods.
- Support technical studies to ascertain if physical modifications can be made to Glen Canyon Dam to allow water to be pumped or released from below currently identified critical and dead pool elevations.
- Continue to work with the Basin states, Basin Tribes, stakeholders and partners to be prepared to implement additional substantial releases from Upper Basin Reservoirs to help enhance reservoir elevations at Lake Powell under the Drought Contingency Plan's Drought Response Operations Agreement.

- Invest in system conservation and voluntary agreements.
- Consider other operational actions to establish flexibility in Upper Basin operations at Reclamation facilities.

In the Lower Basin, Reclamation will:

- Take administrative actions needed to further define reservoir operations at Lake Mead, including shortage operations at elevations below 1,025 feet to reduce the risk of Lake Mead declining to critically low elevations.
- Prioritize and prepare for additional administrative initiatives that would ensure maximum efficient and beneficial use of urban and agricultural water, and address evaporation, seepage and other system losses in the Lower Basin.
- Support technical studies to ascertain if physical modifications can be made to Hoover Dam to allow water to be pumped/released from elevations below currently identified dead pool elevations.
- Invest in system conservation and voluntary agreements.
- Consider other operational actions to establish flexibility in Lower Basin operations at Reclamation facilities.

The Department's approach will continue to seek consensus support and will be based on a continued commitment to engage with partners across the Basin states, Tribes and the country of Mexico to ensure all communities that rely on the Colorado River will provide contributions toward the solutions.

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